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AMSAT NEWS SERVICE
ANS-237

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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SB SAT @ AMSAT $ANS-237.01
ANS-237 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 237.01
>From AMSAT HQ SILVER SPRING, MD.
DATE August 25, 2013
To All RADIO AMATEURS
BID: $ANS-237.01

ARISS-EU update on the ISS HamVideo

How a DATV transmitter on S-band is being added to the ARISS equipment onboard the International Space Station has been related in an announcement recently circulated and available at

http://www.ariss-eu.org/HamVideo.pdf

The ARISS Ham Video transmitter is presently onboard Columbus. The transmitter was delivered by Japanese cargo spacecraft HTV-4, which launched August 4 and docked 5 days later.

ESA astronaut Luca Parmitano KF5KDP / IR0ISS reported that the bags are stored in Columbus. There are two bags: one for the transmitter,

the other for the power, camera and antenna cables.

Installation will be done by US astronaut Michael Hopkins KF5LJG who has been trained for the commissioning of the Ham Video equipment. The commissioning is planned later in the year, possibly the end of October when there are favourable passes over Italy. Indeed, the tests transmissions for the commissioning of the onboard equipment will be received by the ground station of the “Centro di Geodesia Spaziale” of the Italian Space Agency, located in Matera, Southern Italy.

We will report in due time on the commissioning procedure which will involve a series of tests to be performed during 3 or 4 ISS passes.

Possibly, the Ham Video transmitter will transmit continuously between the commissioning steps offering amateur ground stations the opportunity to test and tune their receiving equipment. The transmissions will be performed in automatic mode, without requiring crew time. The camera, which runs on a battery, will not be used and the ground stations will receive a black image.

Meanwhile, commissioning is being prepared steadily. The kick-off meeting took place November 2012 at ESTEC, the European Space Research and Technology Centre, located in Noordwijk the Netherlands. Detailed procedures are examined and finalized during weekly ESA/ARISS teleconferences. A preliminary EST (Experiment Sequence Test) is planned August 28-29. The test will involve the ARISS ground station IK1SLD, located in Casale Monferrato in Northern Italy.

IK1SLD, which is an ARISS telebridge station often used for educational ARISS school contacts on VHF, has been upgraded for S-band reception. Ham Video manufacturer Kayser Italia has delivered a 1.2 meter dish, a down converter and precision tracking motors, which are part of the ESA funded equipment. For the EST, the station will receive a DATV signal from a local low power S-band test transmitter. The decoded signal will be webstreamed to the BATC server. The British Amateur Television Club offers ARISS free access to their server. ESA examiners will connect to the BATC server and evaluate the reception. Test transmissions at IK1SLD will cover the different frequencies and symbol rates available on the Ham Video transmitter.

Web streaming will take advantage of the special software developed by Jean Pierre Courjaud, F6DZP. References are available in the HamVideo.pdf.

When the Ham Video transmitter will become operational, it will be used for ARISS educational school contacts. Video will be for downlink only. Uplink will be VHF FM audio. The Ericsson transceiver onboard Columbus will be used for reception onboard. This cross band and double mode operation is called Ham TV. Ham Video is the name of the DATV transmitter.

[ANS thanks Gaston Bertels, ON4WF for the above information]

AMSAT Mentions and Articles of interest in the Press

+ Amateur Television Quarterly

In the September issue of Amateur Television Quarterly, Gaston Betels, ON4WF, ARISS-Europe Chairman contributes "The Columbus

Project: A DATV Transmitter for the International Space Station" In addition to his fine description of the DATV project and ground station reception and components he cites AMSAT-NA and its volunteers for funding and building the dual band VHF/UHF antennas on Columbus. While giving a chronology of the development of Amateur TV onboard the ISS he writes

"Meanwhile a possibility opened for the installation of VHF/UHF antennas on Columbus. The Europena Space Agency wanted a VHF antenna for a specific payload and was interested in the manner ARISS antennas had been attached to handrails on the Russian service module. A similar system was adopted for Columbus and, at the same time, ESA accepted the installation of a dual band VHF/UHF antenna for ARISS. The antenna project was funded entirely by AMSAT-NA and volunteers who built the antennas for both the ESA experiment and for ARISS. The installation was done per EVA, 21 November 2009. Soon an Ericsson UHF transceiver, which had served in the early ARISS days, migrated from the REussian to the American segment of the Space Station and started Packet Radio operation."

The magazine is available via subscription only. Visit their website www.atvquarterly.com for more information.

[ANS thanks Amateur Television Quarterly for the above information]

+ Monitoring Times

In September's "On the Ham Bands" column, Kirk A. Kleinschnit, NT0Z, writes "The Highs and Lows of Amateur Satellites". He cites AMSAT on numerous occasions in the article and includes a picture of Keith Baker, KB1SF, working AO-51. He references AMSAT as a source of information as well as describing AMSAT's efforts with the phase 3 birds, Oscar 10 and 13, our current cooperation with Universities and other entities and cites our website http://www.amsat.org.

+ CQ VHF

The Summer edition of CQ VHF holds several articles related to satellite and EME. Of particular note are "Add ISS Packet Operation to Your Satellites Activity" by The AMSAT Journal Editor-in-Chief, Joanne Maenpaa, K9JKM. This article originally appeared in the proceedings of the 2012 AMSAT Symposium.

In his "Satellites" column, Keith Pugh, W5IU, writes "Dayton, Ham-Com, Field Day, ARISS Update, and What's New for Working the Birds." Needless to say, the article covers a lot of territory and includes pictures of Tony AA2TX and Wendell W2BFJ, Barry WD4ASW, and Keith W5IU.

+ QST

Check out pages 46-47 of the September QST for an article, "Decibels and dBm Demystified" written by AMSAT member and AMSAT Journal columnist Bob DeVarney, W1ICW.

New Booster: Japan space agency unveils new rocket Epsilon

The Japan Aerospace Exploration Agency on Tuesday unveiled its new solid-fuel rocket Epsilon before its launch with a scientific satellite next week.

Epsilon, a three-stage rocket with 24.4 meter in length, 2.6 meters in diameter and 91 ton in weight, is to be launched from the state-run agency's Uchinoura Space Center in southwestern prefecture of Kagoshima.

The rocket is a successor of the M-5 rocket that was retired in 2006 and is planned to carry a telescope named SPRINT-A, world's first space telescope for remote observation of planets.

The agency originally scheduled to launch the rocket Thursday but postponed until next Tuesday due to wrong wiring in communication equipment.

The original article can be found on-line at:
http://tinyurl.com/New-Japan-Epsilon (Space-Travel.com)

[ANS thanks Space-Travel.com, the Xinhua News Agency, and JAXA for the above information]

AMSAT-NA Board of Directors Ballots Due By September 15th

A reminder that all members in good standing should have received their ballots. In order for your ballott to be counted, it will need to be RECEIVED at the AMSAT office by September 15th.

This year we have 8 candidates for 4 voting Board members and 2 non-voting Alternates. Your vote is especially important this year in selecting those who will help guide AMSAT-NA. If you have not submitted your ballot, please review the candidate biography and position statements you received, as well as the Minutes of the Board Meeting published in the May/June issue of the AMSAT Journal. Then make your voice heard by voting.

[ANS thanks the AMSAT Office for the above information]

Radio Ham VK3FADO Cited in The Age newspaper

The Age newspaper reports on Jonathan Oxer VK3FADO who has been developing the ArduSat CubeSats which carry amateur radio payloads

The article, by Ben Grubb, says for the past 10 months, Jon VK3FADO has been involved in designing and building two crowd-funded micro-satellites that will allow anyone to conduct their own space experiments.

Named ArduSat-1 and ArduSat-X, the low-cost, miniature satellites are aboard the International Space Station ready to be put into orbit between October and March 2014.

Read the full article at
http://tinyurl.com/m56pj4n

ArduSat Open Source Ham Radio CubeSats
http://amsat-uk.org/2013/08/09/ardusat-open-source-ham-radio-cubesats/

This article was posted at:
http://tinyurl.com/k7jjvbt

[ANS thanks Southgate for the above information]

Message In a Bottle

Astronaut Luca Parmitano, KF5KDP, relates his first random amateur radio experience aboard the ISS in his blog entry “Message in a Bottle”

This excerpt from the blog demonstrates one of the thrills many of us have or hope to experience.

"I set the radio to the ‘random’ contacts frequency, and without knowing what to expect, I put on the headphones. Physically, the International Space Station was still many kilometres away from the coastlines of Europe, but our horizon stretches out beneath us for thousands of kilometres and the various European ground stations could already see us. My ears were immediately overwhelmed by a cacophony of unidentifiable sounds and noises, voices, screeching and white noise. Then suddenly, a voice surfaced above the other sounds; it was a young man, in my mind barely more than a boy. He was calling the ISS American radio call sign (NA1SS) and repeating his own call sign. I was taken aback by the emotion that rose in me as I tried to reply to the call, using the Italian call sign (IR0ISS). But my excitement was nothing compared to the sheer astonishment and disbelief I heard in that voice, thousands of kilometres away. Speaking English with a beautiful Portuguese accent, the radio operator on the other side of the signal only managed to say a few words – “I don’t know what to say… This is a dream come true for me!”

Luca finishes by writing,

"Men, women, young and old, experts and complete beginners – they have all wrapped me in a warm blanket of friendship and gratitude, oblivious to the fact that I’m the one who should be thanking them for opening up the doors to an experience that began with that young man in Portugal, and that crossing space and time, reaches the heart of each and every amateur radio operator even before it reaches their ears."

Read the entire blog entry at
http://tinyurl.com/lfuejod

The August 19 ARRL news rlease of the blog can be found at
http://tinyurl.com/kzpts4c

[ANS thanks the ANS Editors for the above information]

AMSAT Symposium is Only 10 Weeks Away

The 2013 AMSAT Space Symposium, hosted by the Johnson Space Center Amateur Radio Club, promises to be exciting and informative.

This years Symposium will be held in Houston November 1-3 at the The Beautiful Marriott Hobby Airport Hotel. The Space Symposium will feature a full array of talks by knowledgeable AMSAT members and others regarding satellite construction and operation, plus other space-related subjects.

The AMSAT Annual Meeting, held in conjunction with the Space Symposium, provides you the opportunity to hear about AMSAT's future plans and voice your own thoughts and opinions to AMSAT Board of Directors members and other AMSAT officials.

For the AMSAT Space Symposium, the Marriott offers:

FREE parking (unusual for a large city hotel)
$94.00 per night room rate
FREE breakfasts, 2 per room per day
FREE WiFi throughout the hotel
FREE Airport Transportation

Make plans NOW to attend the 2013 AMSAT Space Symposium

Hotel reservations can be made by calling 713-943-7979. Visit their website at http://tinyurl.com/houhh-houston-hobby-airportmar

Ask For The AMSAT Block or Use the Code AMSAMSA when reserving your room.

The AMSAT 2013 Symposium Registration Form can be found at http://tinyurl.com/AMSAT-Symposium

On line Symposium Registration is expected to be available in late August.

[ANS thanks AMSAT Office for the above information]

Ham Radio in Space: Ham Radio Payloads Preparing to Launch

Two CubeSats carrying SSB/CW and FM voice transponders are scheduled to be launched into a 600 km orbit during the first half of next year. That news came during the QB50 Project presentation at the AMSAT-UK International Space Colloquium earlier this summer. The QB50 project team has signed a Memorandum of Understanding with AMSAT-UK, AMSAT-Francophone and AMSAT-NL to enable two Amateur Radio payloads to fly on two yet-to-be-named "precursor" CubeSats in advance of the main mission, to deploy about 40 double satellites. The CubeSat launch allows for the testing of key satellite and payload components. In addition, the precursor mission allows for experimentation and validation of the QB50 operational concept. The Amateur Radio payloads will become the primary payload of the spacecraft once all QB50-related experimentation has been concluded.

The AMSAT-F payload for one of the satellites will be an FM voice relay with VHF uplink and UHF downlink. It will also transmit FX25 telemetry at 9.6 kbit. The AMSAT-NL payload on the other precursor satellite will incorporate an SDR-based, linear V/U transponder core. It will provide a telemetry downlink at 1.2 kbit. The QB50 spacecraft generally will have downlinks in the 435-438 MHz Amateur Satellite Service allocation, although some are expected to use 2.4 GHz.

Meanwhile, the Baltic nation of Lithuania is hoping that its first

two satellites will be launched later this year from the International Space Station (ISS). The nanosatellites carrying Amateur Radio payloads could be among the CubeSats sent by payload handler NanoRacks LLC to the ISS on the SpaceX CRS-3 mission this November. The Kaunas University of Technology is developing LituanicaSAT-1, while the Lithuanian Space Association is working on LitSat-1.

This year marks the 80th anniversary of the historic flight by Lithuanian pilots Steponas Darius and Stasys Gireenas in the Lituanica aircraft. On July 15, 1933, they took off from Floyd Bennett Field in New York and flew across the Atlantic, covering a distance of 6,411 kilometers in 37 hours and 11 minutes. Tragically they perished after crashing in Germany, just 650 kilometers from their destination of Kaunas, Lithuania.

LituanicaSAT-1 will carry a VGA camera, GPS receiver, 9600 bps AX25 FSK telemetry beacon and a 150 mW V/U FM voice transponder. LitSat-1 is planning a U/V linear transponder for SSB/CW communications. -- AMSAT News Service/AMSAT-UK

[ANS thanks AMSAT News Service/AMSAT-UK for the above information]

Ham Radio Cubesats Hope for November Launch

On Thursday, August 22, 2013 at 14:39 UT Korea’s satellite KOMPSAT-5 launched on a Dnepr from Dombarovsky near Yasny

This marked the first flight of the Dnepr launcher since August 2011 and the successful launch should clear the way for the launch in November of another Dnepr from Yasny believed to be carrying up to 23 satellites from 13 nations.

Most of the satellites will carry amateur radio payloads and it should be the largest single deployment of amateur radio satellites since the ill-fated Dnepr launch of July 26, 2006. http://www.southgatearc.org/news/july2006/dnepr_failure.htm

The launch had originally been planned for September 2012 but was postponed while the future of the Dnepr launch program was discussed.

Among the satellites carrying payloads operating in amateur radio bands that may be on the November launch are:
• UniSat-5 microsat which will deploy Eagle-1, Eagle-2, QB-Scout, estar-2, Wren and PUCP-SAT-1 which it turn should release a further satellite Pocket-PUCP
• Delfi-n3Xt
• Triton-1
• Triton-2
• GOMX-1
• FUNcube-1
• UWE-3
• CubeBug-2
• BRITE-PL1
• Humsat-D
• CPUT ZAcube-1
• HinCube
• BeakerSat
• NEE-02 KRYSAOR (910 MHz)

[ANS thanks Southgate ARN for the above information]

The USA Lower 48 Worked all 488 Grids non-Award

John Papay K8YSE, recently announced, on the AMSAT-BB, that he has just completed working all 488 grids in the Lower 48 states.

John writes,

"Some of the active grid chasers on the birds are aware that KA6SIP just gave me my last USA grid when he operated from CN72 in Oregon. And I thought it might be interesting to look at the stats and how one manages to work and confirm all 488 USA lower 48 States grids.

"Satellite operators come and go and grids come and go with them. A grid might have a very active operator in it and then it is off the air when that person goes away for whatever reason. Interestingly, about half of the 488 grids that were worked were from those operating portable, not in the sense of using a radio with batteries, but in the traditional sense of operating away from their home station location. Once you have experienced being on the other end of a small pileup, you will want to do it again. Just ask W7LRD who tried it recently and is planning another trip."

In his post John goes on to list operators who exited the comfort of their home station and put a grid on the air.

John further reflects,

"I started with satellites in June 2006 and only had 47USA grids by August 2008. From August 2008 till Jan 2009 I worked another 109. In 2009 199 were worked. 2010 was 76 and 2011 was 44. Only 4 new grids were worked in 2012 and 9 were snagged in 2013. Eight of those final 9 grids were handed out by Tom KA6SIP. He heard about the need and decided to make a grid expedition to put them on the air. He did 7 of them in one trip. Then Bob W7LRD went to the beach in CN77, operating away from home for the first time. That left CN72. Tom just got back from Hawaii and quickly made plans to camp out in CN72 and gave me the final grid on AO-7B, 20 August 2013 at 2332z. Then he put CN71 on the air on 22-23August, also a very rare grid square but one that I already had. Many others worked him there.

"There is no award for working all 488 grids on satellites as there is for six meters (FFMA). The ARRL awards committee has looked at it and will implement it if someone on the Board of Directors brings it up for a vote and it passes. Hopefully that will happen soon. Having that type of award gives everyone something to work for. It promotes grid expeditions and interest in working through the satellites. If we all contact our ARRL Director, it might just happen.

"There may be others who have already worked all 488 grids on satellites. K6YK might be one of them. I know there are several others who are getting close. It is not any easy thing to accomplish even if you operate every day. It is something you can work towards over the years.

"I want to thank everyone that made satellite contacts with me that ultimately led to working all 488. Many went out of their way to put on a grid. Over half of the grids worked were from grid expeditions!

If you haven't experienced operating away from home, please consider it. With new operators showing up on the birds every day, there is always a need for an uncommon grid. And you will have a lot of fun doing it! Just ask anyone on my list."

John's original post, including the list of those who worked him portable, can be found in the bulletin board archives
http://www.amsat.org/amsat/archive/amsat-bb/48hour/msg98283.html

Congratulations on your accomplishment, John!

[ANS thanks JohnK8YSE for the above information]

Cubebug-1 Good News

The satellite launched April this year known as Capitan Beto, is recovering from its balance of energy that caused its transmitter to be turned off for several days.

The recovery was achieved after one of the AMSAT-LU stations in coordination and in conjunction with Satellogic team, sent a command to reconfigure onboard software that turned off attitude control circuits feeding magnetorquers this last weekend .

Telemetry text mode command taken before change can be seen at
http://www.amsat.org.ar/images/cubebug130818.txt .

Operation was done using RTL dongle, connected directly to antenna, using HDSDR recording software as IF mode only, that helped not to record big amount of data from Orbitron connected to DDE, also automatically compensating Doppler, see
http://www.amsat.org.ar/images/cubebug130818.jpg
which at top shows command sent and satellite response below.

After reset, Cubebug-1 went to 'mission state', batteries showing adequate level of charge.

Good reports were received from several amateurs from different parts of the globe.

This activity was performed as part of the agreement of mutual collaboration that Satellogic & Amsat-LU signed in July 2013.

The satellite transmits at 1200 bps AFSK, on 437.438 KHz, broadcasting packets every 30 seconds, signal is low requiring directional antenna and preamp for adequate reception.

Cubebug-1 telemetry information can be found at
http://1.cubebug.org/coms/telemetry

It is hoped that the packet radio digipeater, that is onboard Cubebug-1, will be activated for amateur radio use after its primary mission objectives have been met.

[ANS thanks AMSAT-LU for the above information]

ARISS News

Successful Contacts

+ A Successful contact was made between Epet No. 2, Gral. Pico, Argentina and Astronaut Luca Parmitano, KF5KDP, using callsign NA1SS. The contact began 2013-08-06 11:48 UTC and lasted about nine and a half minutes. Contact was telebridged via LU8YY. IKØWGF and IKØUSO served as ARISS mentors.

+ A Successful contact was made between Ecole Primaire Pasteur, Fleurance, France and Astronaut Luca Parmitano, KF5KDP, using callsign NA1SS. The contact began 2013-08-07 11:01 UTC and lasted about nine and a half minutes. Contact was telebridged via LU1CGB. IN3GHZ and F6ICS served as ARISS mentors.

+ A Successful contact was made between 14th World Scout Moot Canada 2013, Camp Awacamenj Mino, Ottawa-Gatineau, Quebec, Canada and Astronaut Astronaut Luca Parmitano, KF5KDP, using callsign IRØISS. The contact began 2013-08-12 18:46 UTC and lasted about nine and a half minutes. Contact was telebridged via IK1SLD. VE3TBD served as ARISS mentor.

+ A Successful contact was made between Centro Educativo No9 Dr. Juan Lleren, Villa Mercedes, Argentina and Astronaut Luca Parmitano, KF5KDP, using callsign NA1SS. The contact began 2013-08-14 16:42 UTC and lasted about nine and a half minutes. Contact was direct via LU8YY/Q. IKØWGF and IKØUSO served as ARISS mentors.

+ A Successful contact was made between North-Western Regions Obesstvennoj The Cosmonautics Federation Of Russia, Russia and Cosmonuat Pavel Vinogradov, RV3BS, using callsign RSØISS. The contact began 2013-08-17 16:25 UTC and lasted about nine and a half minutes. Contact was direct via RA1AJN. RV3DR served as ARISS mentor.

+ A Successful contact was made between Facultad de Ingeniería y Ciencias Económico-Sociales, Universidad Nacional de San Luis, Villa Mercedes, Argentina and Astronaut Luca Parmitano, KF5KDP, using callsign NA1SS. The contact began 2013-08-19 14:14:35 UTC and lasted about nine and a half minutes. Contact was direct via LU8YY/Q. IKØWGF and IKØUSO served as ARISS mentors.

+ A Successful contact was made between Festive event Berkan, Ile de La Réunion and Cosmonuat Pavel Vinogradov, RV3BS, using callsign RSØISS. The contact began 2013-08-19 21:31 and lasted about nine and a half minutes. Contact was direct via FR1GZ. ON4WF and RV3DR served as ARISS mentors.

Upcoming ARISS Contacts

+ Youth Forum near the Black Sea, via TBD
Contact is a go for 2013-08-26 15:30 UTC

+ Amicale Space Camp organized by Sterrenlab for children of the European Patent Office/NL, Leiden, The Netherlands (Summer Space Camp, Noordwijk, Netherlands), Netherlands, via PA3GUO
Contact is a go for: Wed 2013-08-28 13:49:07 UTC

+ Gwalior Glory High School, Gwalior, Madhya Pradesh, India, telebridge via IK1SLD
Contact is a go for: Sat 2013-08-31 11:22:58 UTC

[ANS thanks Charlie Sufana AJ9N and ARISS for the above information]

Satellite Shorts From All Over

+ Captain Yuri, UT1FG/mm is back at sea, he picked up his ship in Santos, Brazil, which is very far south in Brazil (GG66) and out of all satellite range for North America and he is headed SOUTH! Next port is in Uruguay, even further SOUTH! He apparently did not have WiFi access while in Santos, Brazil, but friends expect that Captain Yuri will contact one of them as soon as he can to give us some updates on where his next ports will be. (Frank, K4FEG on starcomm-bb)

+ DUBUS issue 4/2012 is available as free sample in PDF format (16MB) here: http://bit.ly/14tWuOf

  DUBUS is a quartlery published magazine for technique and DX on VHF/UHF/SHF covering all bands from 6m to light. More information is available on www.DUBUS.org (Southgate)

  Source: Joe ,DL8HCZ/CT1HZE

+ Ham Technology: The Radio Documentation Project Manuals for China Built Radio Gear

  If you own a China built hand-held and have questions that the manual does not answer, there's now a new source of information. Calling itself the Radio Documentation Project, this website plans to provide high quality and in-depth open source documentation user manuals for mainland-China built handheld two-way radios.

  Its first completed work is a PDF file containing a well documented manual for the popular Baofeng UV-5R dual bander. The instructions are clearand distinct. Best of all it is available as a free download at tinyurl.com/new-uv5r-booklet. (Southgate)

  Source: Amateur Radio NewslineT Report 1879 - August 16 2013

+ This past week arising out of Australia's ACMA reason for not continuing the high power trial for radio amateurs was an observed lack of understanding of operator's obligations with regard to Electromagnetic Magnetic Radiation. As part of the emphasis on education regarding Electromagnetic Magnetic Radiation, the Wireless Institute of Australia (WIA) posted a web page, "Amateur Radio And Electromagnetic Radiation Issues" at: http://www.wia.org.au/members/technical/emr/

  Topics on the WIA web include:
  * What is EMR ?
  * Understanding Electromagnetic Radiation Compliance for Amateur Radio Stations
  * Compliance
  * File For Download - VK3UM EMRCalc Ver 7.07

  Where the specifics apply to Australia the information on this web page provide a common sense tutorial for amateur radio operators worldwide. The VK3UM EMRCalc is a fascinating software tool allowing you experiment with transmitted power levels, antenna height, and antenna gain.

  Source: Wireless Institute of Australia (WIA)

+ APRS has standardized an ID series for amateur Oscar spacecraft.
  APOxxx.

  At the request of Juan Carlos, LU9DO, AMSAT-LU wanted a series of
  APRS designators for uniquely identifying AMSAT APRS applications.
  He suggested those beginning with the letter O for OSCARS.

  ALL APRS applications include this identifier in their packets so
  that the source of APRS data can be known. See the list
  http://aprs.org/aprs11/tocalls.txt

  Source: Bob, WB4aPR via AMSAT-BB

+ Help Requested for Cleaning up Old Mac Applications

  As part of moving features to the new AMSAT.ORG site, we are
  cleaning out old programs which are no longer used or useful.
  Alan, WA4SCA, would appreciate Mac users looking at the old
  programs and letting him know which ones are still useful,
  or not.

  http://tinyurl.com/ANS237-AMSAT-web-archive

  The old archive WILL be available, but we want to clean out the
  dead wood for current programs.
  Hopefully with a refreshed site we will also have new programs
  available.

  Source: Alan, WA4SCA, via AMSAT-BB

/EX

In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive addi-
tional benefits. Application forms are available from the AMSAT
Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students
enrolled in at least half time status shall be eligible for the stu-
dent rate for a maximum of 6 post-secondary years in this status.
Contact Martha at the AMSAT Office for additional student membership
information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org